

### **REMARKS**

Claims 1-20 are pending in the present application. In the Office Action mailed September 26, 2007, the Examiner rejected claims 1-6, 8, 12-14, and 17 under 35 U.S.C. §103(a) as being unpatentable over a single reference -- Foo (USP 6,526,307).

Claims 15 and 16 are allowed. Claims 7, 9-11, and 18-20 were indicated as containing allowable subject matter. Such indication is appreciated.

In regard to claim 1, the Examiner states that the computer system of Foo “comprises an input device that enables an operator to control the production of the images on the screen” and that “[p]arameters that are often used to control the production of the images (identifying a set of imaging parameters) are receiver bandwidth, x-resolution, TR, T1, flip angle, y-resolution, and number of slices.” *Office Action*, 9/26/2007, Pg. 2. It appears that the Examiner is attempting to reject Applicant’s claim 1 limitation of “identifying a set of user-selected imaging parameters for a prescribed MR data acquisition of a targeted tissue” using the above teaching. However, this rejection finds no support in the text of Foo. The Examiner merely recites imaging parameters that are purportedly “often used” to control the production of images, none of which are taught in Foo. In fact, Foo only teaches that “the system control 32 receives commands from the operator which indicate the scan sequence that is to be performed.” *Foo*, Col. 5, Lines 47-49. Clearly, the operator simply indicating that a scan sequence is to be performed is not equivalent to identifying a set of user-selected imaging parameters, as is presently claimed. The fact that a computer or operator could perform certain tasks does not correlate to any specific teaching or suggestion of the claimed elements. Similarly, Foo cannot be shown to teach the limitation of “setting a length of a train of alpha pulses of a gradient echo sequence specific to the user-selected imaging parameters”, as Foo fails to set forth any identifying of user-selected imaging parameters. Again, the Examiner provides no support from the Foo reference to teach this limitation. Accordingly, without specific support or motivation in the art of record, the Examiner’s rejection of claim 1 should be withdrawn.

Next, regarding claim 8, the Examiner states in the rejection that “[t]he computer can also determine the null point of the tissue and the T1 times for the tissue (col. 6, line 43-61).” *Office Action*, 9/26/2007, Pg. 3. However, this rejection again finds no support in the text of Foo. Claim 8 calls for, in part, a computer programmed to “determine a null point of tissue to be suppressed” and “determine a time interval for longitudinal magnetization of the tissue to recover from the null point.” Nowhere in Foo is it taught that a computer is programmed to “determine a null point of tissue to be suppressed” and “determine a time interval for longitudinal

magnetization of the tissue to recover from the null point.” The Examiner merely recites a set of possibilities, none of which are specifically or inherently taught in Foo. The fact that a computer could be programmed to perform certain tasks does not correlate to any specific teaching or suggestion of the claimed elements.

Further, the Examiner has failed to even address a limitation in claim 8, that calls for “from the time interval, determine a number of alpha pulses to be applied after each inversion pulse of a gradient echo pulse sequence.” Again, the Examiner has provided no support from the Foo reference to teach that a computer is programmed to “determine a time interval for longitudinal magnetization of the tissue to recover from the null point.” In this respect, Foo also cannot be said to teach that “from the time interval, determine a number of alpha pulses to be applied after each inversion pulse of a gradient echo pulse sequence.” As set for above, Foo does not teach determining a time interval, and thus clearly cannot be said to teach determining a number of alpha pulses from the time interval. The Examiner has given no indication where such features are taught in the prior art and has simply failed to address these limitations. According to MPEP §706, “[t]he goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has an opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity.” *MPEP* §706. Accordingly, without specific support in the art of record, the Examiner’s rejection to claim 8, and all claims dependent therefrom, should be withdrawn.

Claim 17 was also rejected by the Examiner under 35 U.S.C. §103(a) as unpatentable over Foo. Again, as is shown above with respect to claim 1, the Examiner merely states that the computer system of Foo “comprises an input device that enables an operator to control the production of the images on the screen” and that “[p]arameters that are often used to control the production of the images (identifying a set of imaging parameters) are receiver bandwidth, x-resolution, TR, T1, flip angle, y-resolution, and number of slices.” *Office Action*, 9/26/2007, Pg. 2. The Examiner appears to be attempting to reject the claim 17 limitation of “identifying a set of user-selected imaging parameters for an imminent MR scan of a targeted tissue” using the above teaching. However, this rejection again finds no support in the text of Foo. The Examiner merely recites imaging parameters that are purportedly “often used” to control the production of images, none of which are specifically or inherently taught in Foo. In fact, Foo only teaches that “the system control 32 receives commands from the operator which indicate the scan sequence that is to be performed.” *Foo*, Col. 5, Lines 47-49. Clearly, the operator or computer simply indicating that the scan sequence is to be performed is not equivalent to identifying a set of user-selected

imaging parameters, as is claimed. The fact that a computer or operator could perform certain tasks does not correlate to any specific teaching or suggestion of the claimed elements.

Further, the Examiner states that Foo teaches “a spectrally-selective inversion pulse selecting normal myocardial tissue.” *Office Action*, 9/26/2007, Pg. 3. However, Foo clearly does not teach the use of a spectrally selective inversion pulse. Rather, Foo teaches that “[t]he first RF pulse played out is a slice-selective inversion pulse.” *Foo*, Col. 6, Lines 43-44. A slice-selective inversion pulse is not the same as a spectrally selective inversion pulse. Slice-selective inversion pulses, as taught by Foo, are dependent upon the section thickness of an imaged slice, whereas spectrally selective inversion pulses are dependent upon only certain features in an already selected location, such as fat spins. For this reason, the Foo reference cannot be relied upon to teach the claimed limitation of a computer caused to “on-the-fly, determine a flip angle of a spectrally selective inversion pulse to be applied to immediately drive suppressed magnetization of the targeted tissue to steady-state.” Accordingly, without specific support in the art of record, the Examiner’s rejection to claim 17 should be withdrawn.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-20.

Applicant hereby authorizes charging of Deposit Account No. 07-0845 for any additional fees associated with entering the aforementioned claims.

Applicant appreciates the Examiner’s consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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**General Authorization and Extension of Time**

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 07-0845. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 07-0845. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 07-0845. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 07-0845.

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